REMARKS

The present preliminary amendment is made to correct typographical errors in the specification. No new matter has been added. Entry of the above amendments is respectfully requested.

Respectfully submitted,

By: _____

Frank Chau
Registration No. 34,136
Attorney for Applicant(s)

F. CHAU & ASSOCIATES, LLP
1900 Hempstead Turnpike, Suite 501
East Meadow, New York 11554
(516) 357-0091

In the Specification: (Marked-up Version)

Referring to Fig. 1, a sales floor 1010 is shown, including a customer 1040 carrying a portable display device 1050. The sales floor includes active beacons [2010-2060] 1110-1160 and display cases [2070, 2080, and 2100] 1170, 1180, and 1100. The active beacons can include, *inter alia*, radio frequency, ultrasonic, and infrared beacons. A store database server [2090] 1190 is provided including information related to goods and/or services provided by a business or vendors on the sales floor. The customer 1040 can access the database server [2090] 1190 via the portable display device and a wireless link (e.g., including, but not limited to those supported by IEEE standards 802.11a and 802.11b, and developing standard 802.11g). Platforms able to provide the services for the store database server [2090] 1190 include, but are not limited to, IBM's DB/2 database server running on one of IBM's 390 or RS/6000 computer systems. Other systems would be obvious to one skilled in the art.

If the input was not a trigger request, the portable display device checks if data is being returned 5040 by the Store Database Server [2090] 1190. This typically happens in response to a previous user request. However, data might also be sent spontaneously based on the user's current position either as a navigational aid, or as a location-specific advertisement feed. Upon detecting the arrival of data from the Store Database Server 1190, the portable display device invokes its Data Receive [Hander] Handler 5060 to pull in all data being sent to it. The portable display device then invokes its Data Display Handler 5070 in order to the present the received data on its display. Finally control passes back to block 5000. If no such data is being received, a miscellaneous handler is instead invoked 5050, after which control continues directly at block

5000.

One with regular skill in the art will also see that the whole apparatus can be turned around. That is, the emitters can be part of portable display device 1050 while the light detector 9400 and lens 9300 are part of the store infrastructure. In this case the position determination would most likely be done by store database server [2090] 1190 (or some equivalent computer which is part of the store) instead of by portable display device 1050.

According to an embodiment of the present invention, an approximate position can also be established based on proximity to a particular reference. For example, the portable display device can determine its position according to which micro-cell a radio was operating in, the angular sector of one or more micro-cells, the code(s) associated with the strongest responding nearby beacon(s) [2110 - 2060] 1110 - 1160, the reading of a barcode affixed to a pillar within the building, or even the reading of the barcode on a shelf or affixed directly to a product. According to the preferred embodiment, beacons [2110 - 2060] 1110 - 1160 can be RF (radio frequency) emitters. The portable display device would then use sensor 2020 and Signal Processor 4030 to determine the signal strengths of the RF beacon(s). The strength of such a signal is related by the inverse square law to the distance between the beacon and the portable display device. Thus, the strongest beacon among a group of beacons can be determined to be the most proximate beacon. If signals from two or more beacons were received, a position somewhere in between them can be interpolated based on the known signal propagation characteristics.